

# **Appendix 8**

**NARRATIVE  
DESCRIPTION**

-

**PROCESS FLOW  
DIAGRAM**

-

**PLOT PLAN**

-

**MAP**

-

**DUST CONTROL PLAN**


## **PROCESS DESCRIPTION NARRATIVE**

A full narrative of the Ely Energy Center process, including process descriptions, emissions estimates of regulated air pollutants, and a discussion of applicable requirements, is presented in Sections 1.0 through 4.0 of the “Application for Operating Permit to Construct,” which precedes the NDEP application package. Appendix B of the “Application for Operating Permit to Construct” presents the best available control technology (BACT) analysis, and Appendix A9 discusses the air quality impact analysis, including modeling.





### Legend

 Fence Line Boundary

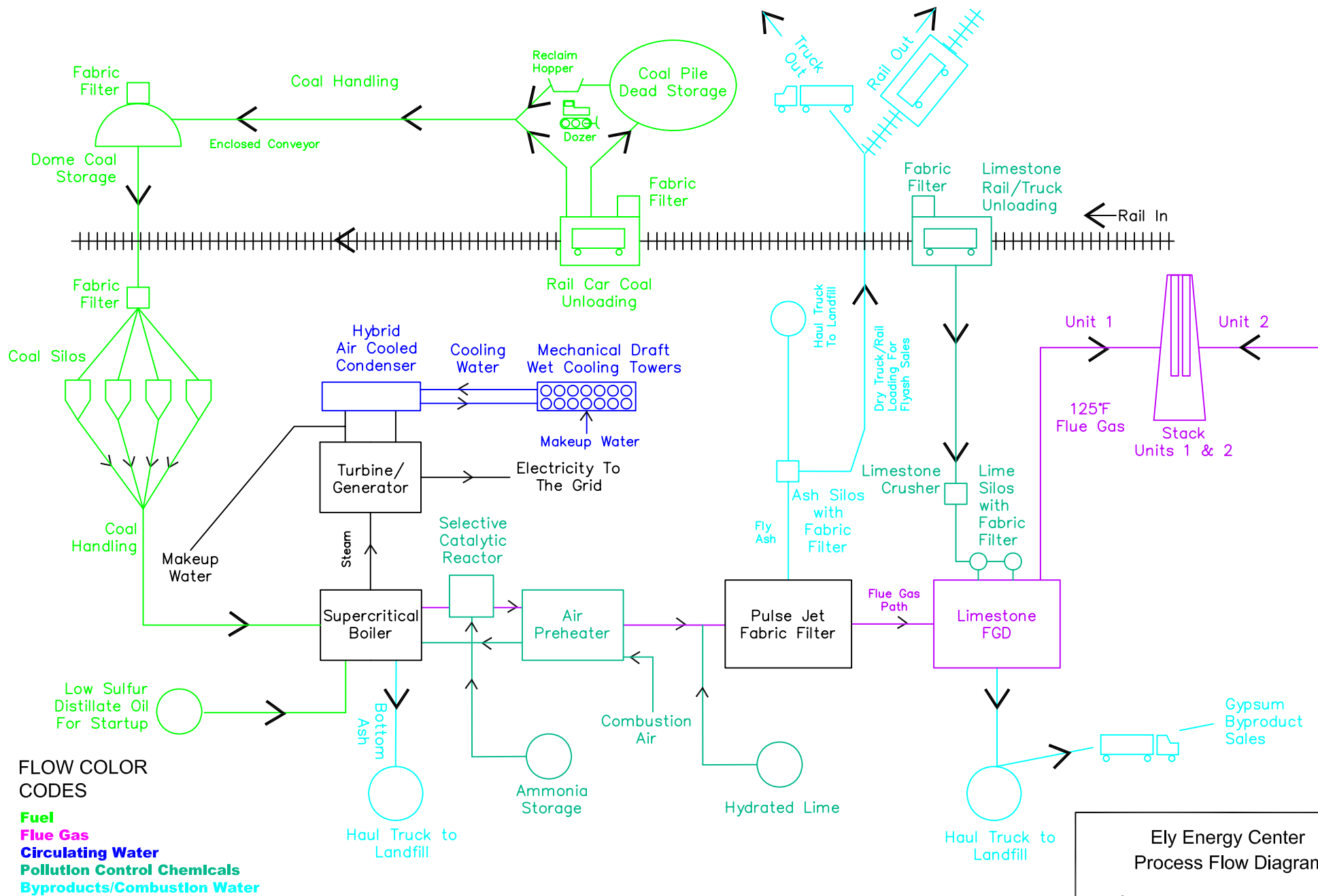


0 5  
Approximate Scale in Miles



Ely Energy Center  
Location Map



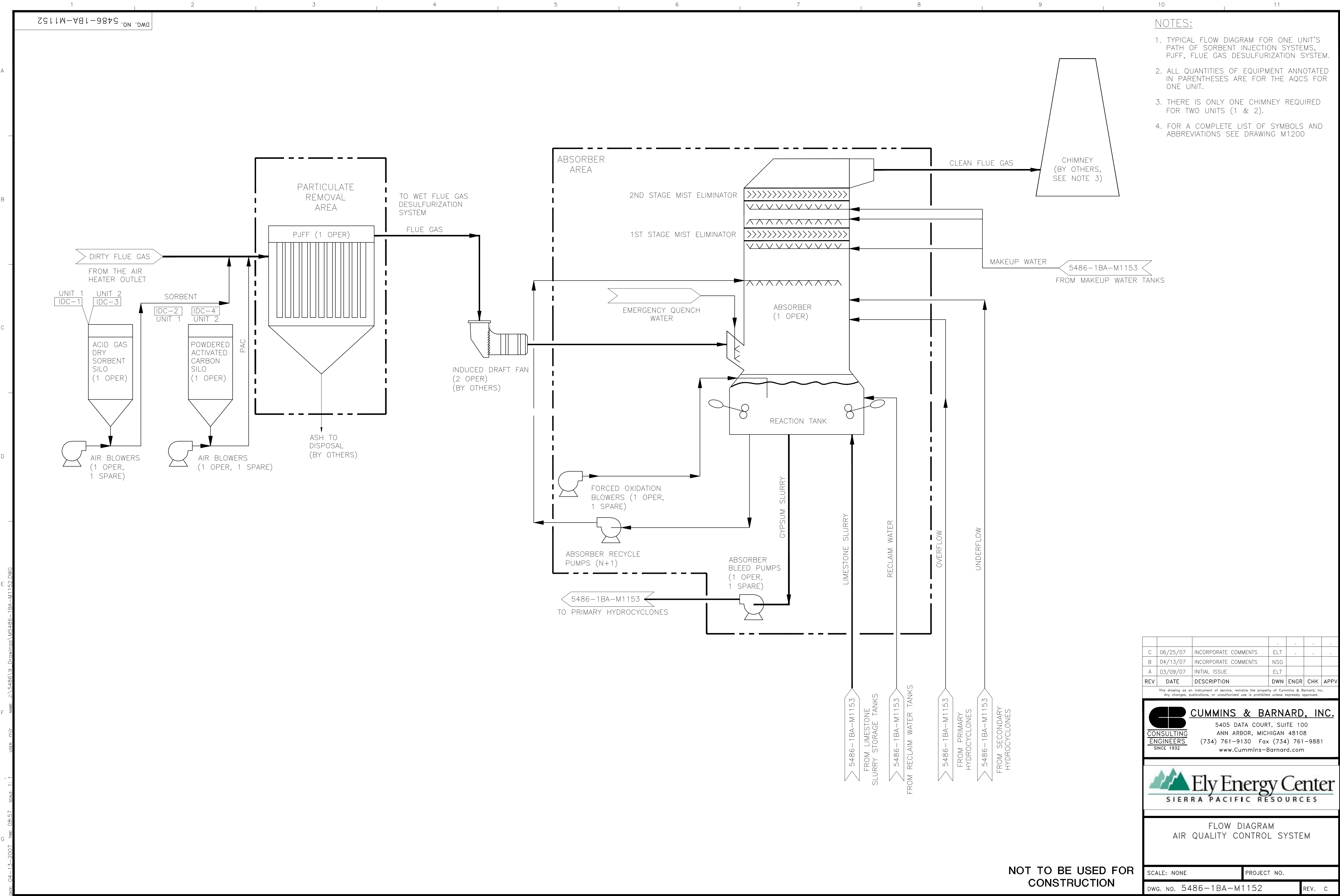


Ely Energy Center  
Process Flow Diagram









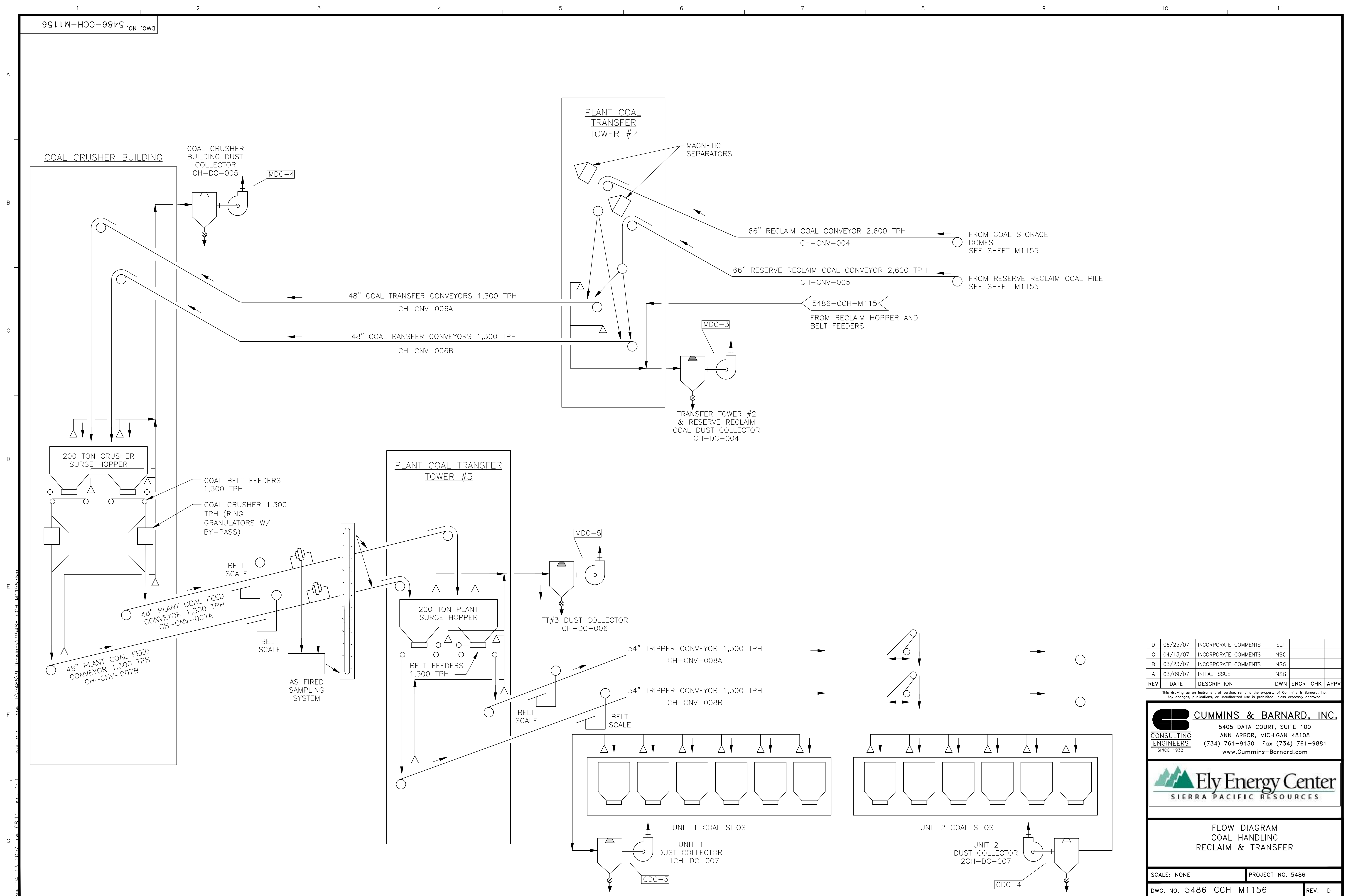


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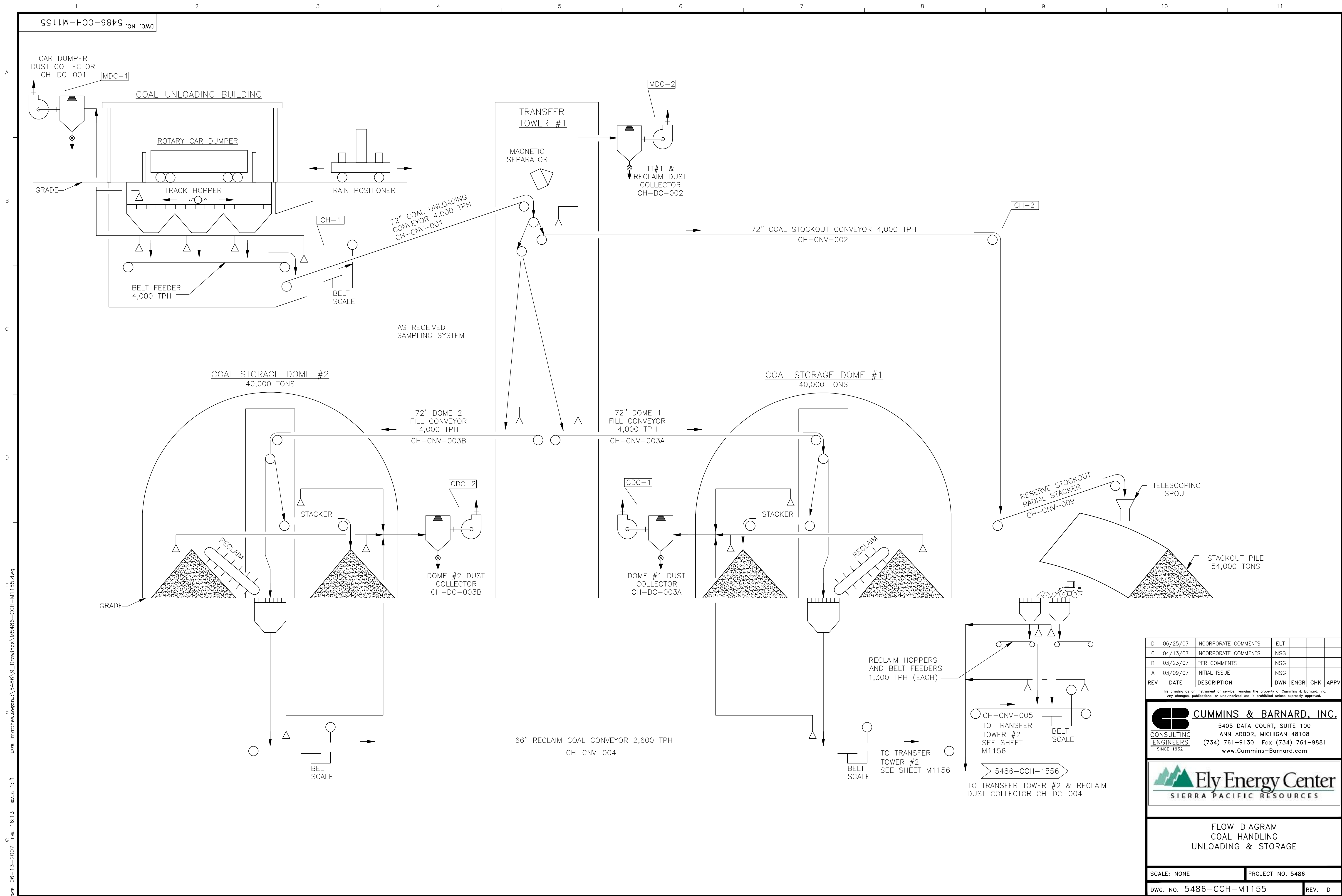


**Ely Energy Center**  
SIERRA PACIFIC RESOURCES

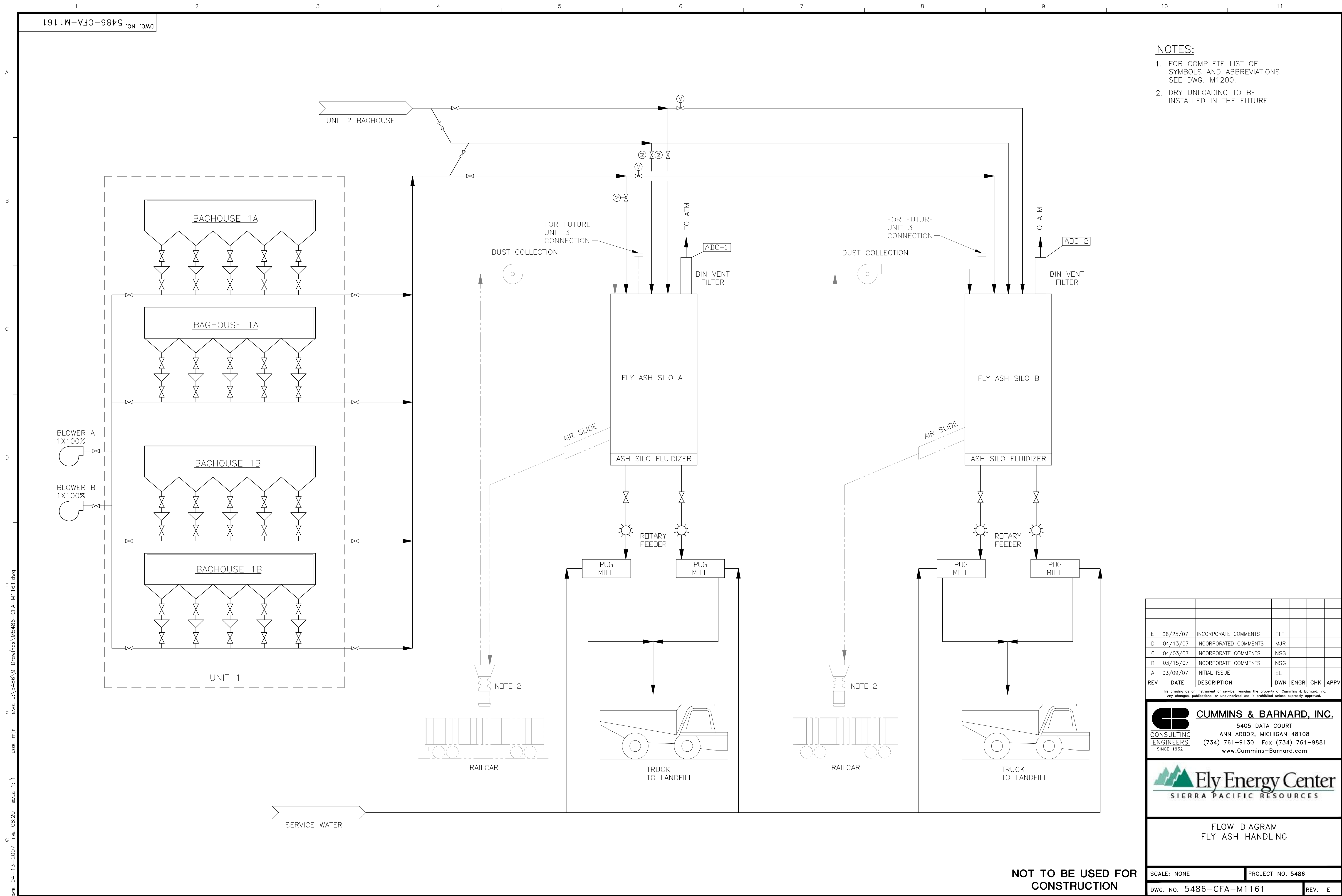
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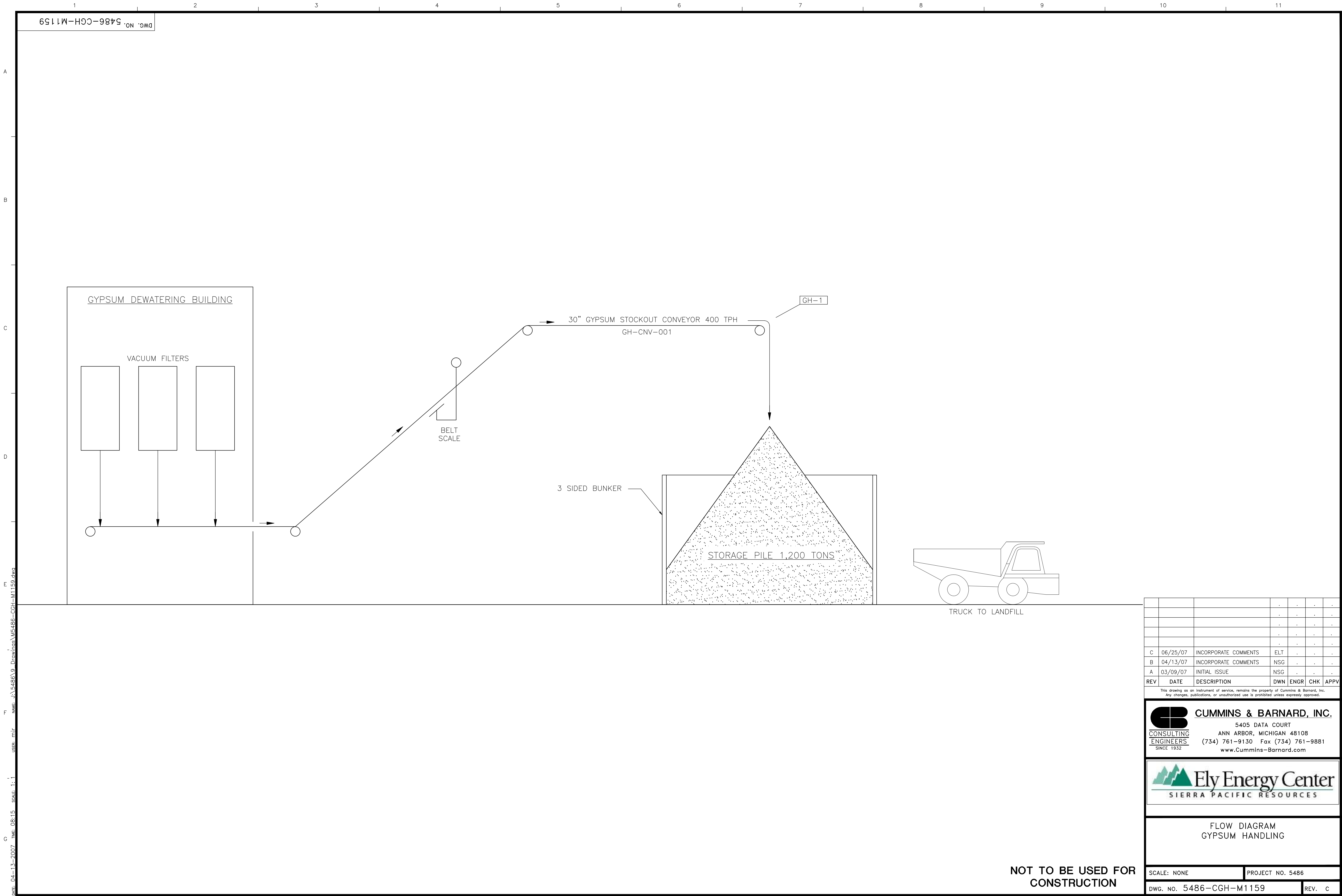













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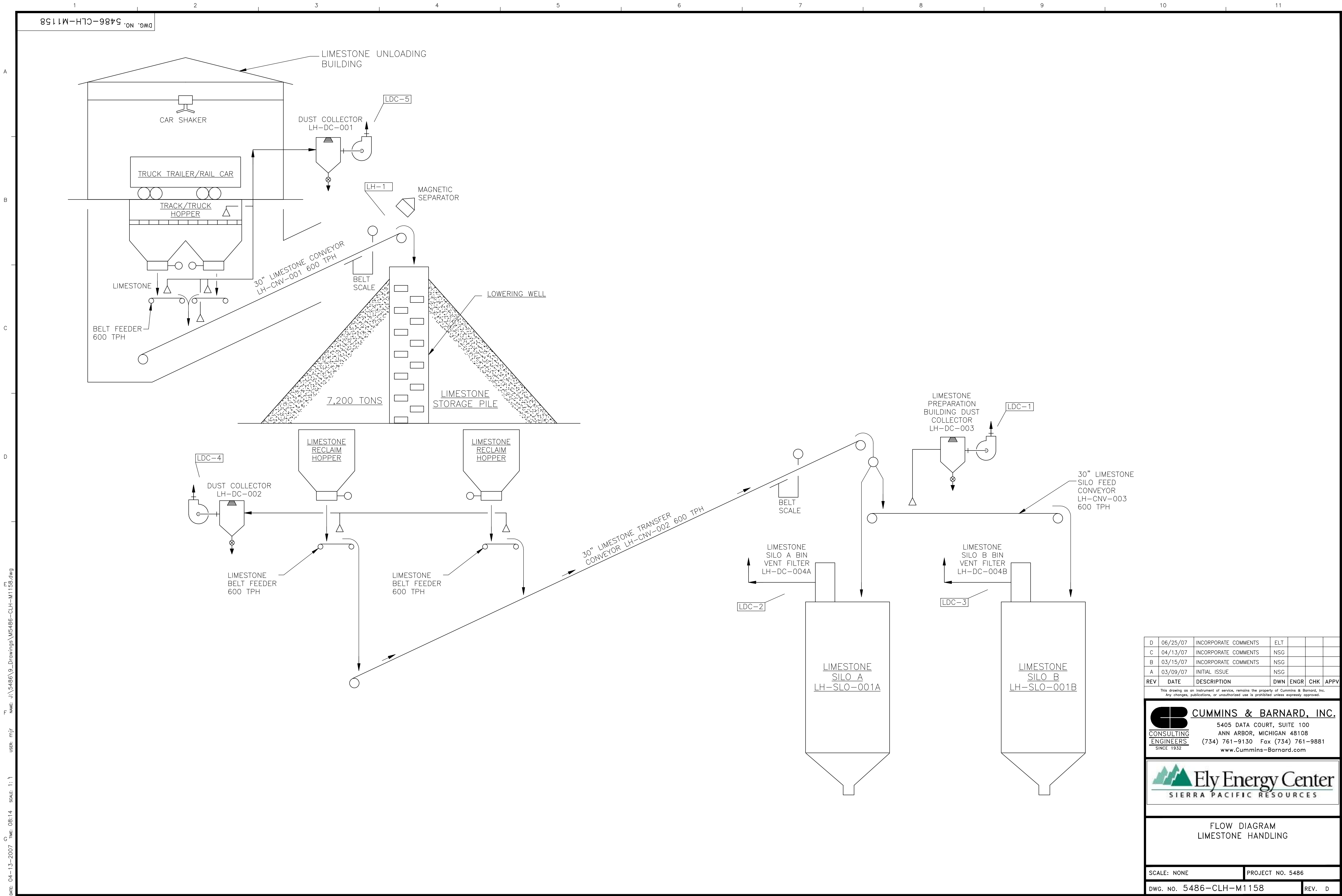
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(734) 761-9130 Fax (734) 761-9881  
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FLOW DIAGRAM  
GYPSUM HANDLING

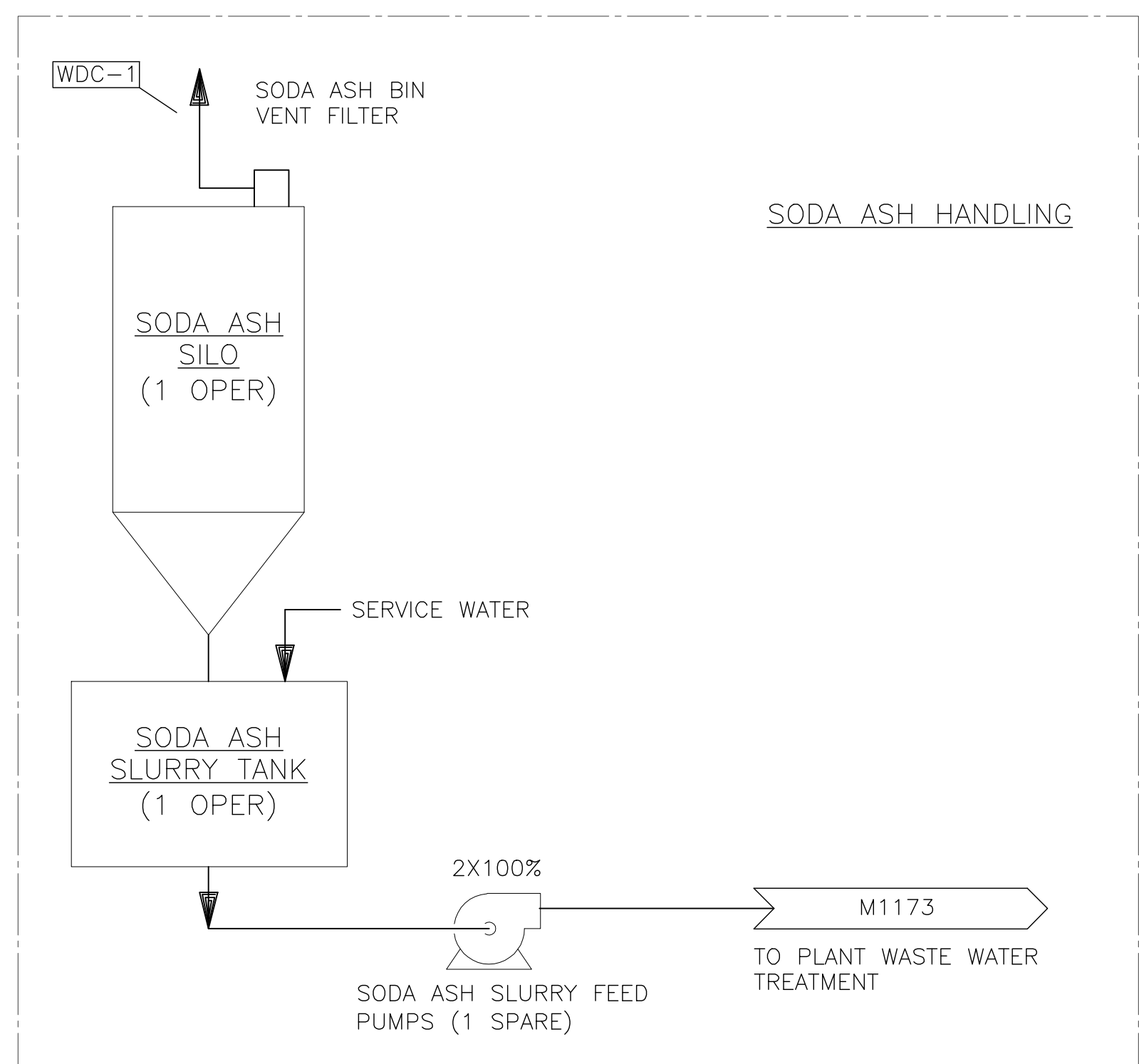
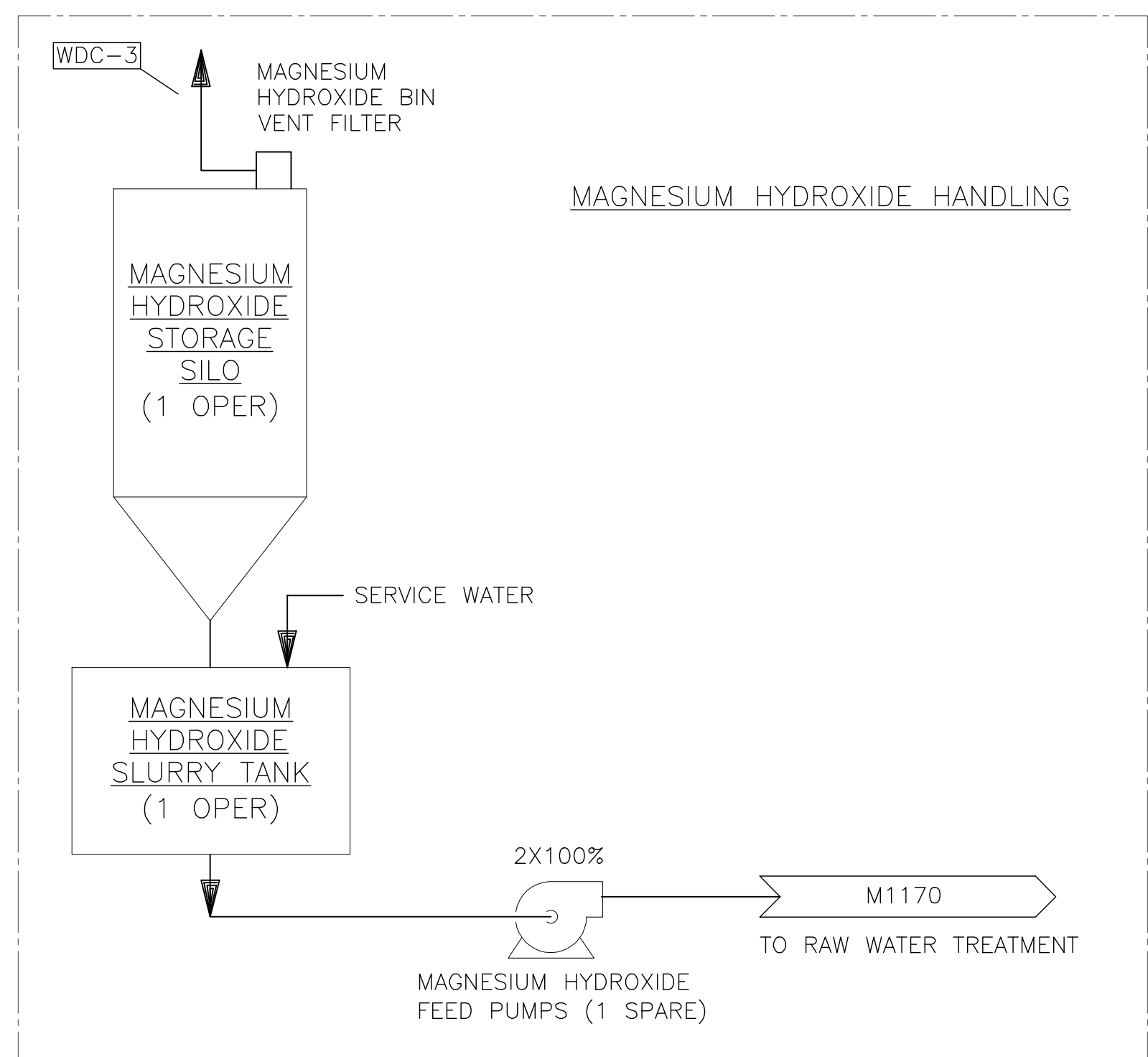
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1. FOR COMPLETE LIST OF SYMBOLS  
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ELY ENERGY CENTER  
PROCESS FLOW DIAGRAM  
SODA ASH, LIME AND MAGESIUM HYDROXIDE  
HANDLING SYSTEMS

SCALE: NONE	PROJECT NO. 5486
DWG. NO. 5486-CWT-M1174	REV. B

**NOT TO BE USED FOR  
CONSTRUCTION**



## **DUST CONTROL PLAN**

### **APPENDIX A8**

**Prepared for:**

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**Submitted to:**

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BUREAU OF AIR POLLUTION CONTROL  
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### ATTACHMENT

**NAC SECTION 445B.22037 REGULATORY GUIDANCE**

## **1.0 INTRODUCTION**

This dust control plan describes measures to be taken by Sierra Pacific Resources (SPR), which consists of both the Nevada Power Company and Sierra Pacific Power Company, and its Contractors to ensure that dust control measures are implemented and maintained in accordance with federal, state, and local regulations during construction and operation of the Ely Energy Center (EEC) facility. This plan was developed in compliance with the conditions identified in the Nevada Division of Environmental Protection (NDEP) document, “Surface Area Disturbance Permit, Dust Control Plan (Plan) Preparation Guidelines” (NDEP 2002).

This dust control plan presents contact and location information (Section 2.0) and discusses enforcement (Section 3.0), environmental training (Section 4.0), the daily operation log (Section 5.0), and dust control measures (Section 6.0). References used to prepare this plan are listed in Section 7.0. The project description and schedule, plan objectives, and responsibilities are described below.

### **1.1 PROJECT DESCRIPTION AND SCHEDULE**

SPR is proposing to build a new power generation plant, the EEC, near Ely, Nevada, in White Pine County. The Sierra Pacific Power Company and Nevada Power Company will own and jointly operate the EEC. The EEC is a vital part of SPR’s integrated resource plan for supplying electric power to meet Nevada’s growing electrical demand. The proposed EEC will consist of a two-unit, pulverized coal-fired (PC) plant. The EEC will use a supercritical cycle and be designed to fire western sub-bituminous coal. Each unit will be rated at 750 megawatts (MW) nominal generating capacity and share a common stack. Ancillary plant equipment will include fuel and waste preparation and handling equipment; fuel and waste loading/unloading, transfer, and storage facilities; a distillate oil-fired auxiliary boiler; fire protection equipment; and auxiliary generators. All control equipment has been selected from a best available control technology (BACT) analysis. The EEC will be equipped with a continuous emissions monitoring system (CEMS) that will monitor and record pollutants as required under federal and state regulations.

The EEC plant and associated features will be located in White Pine County on approximately 2,599 acres. The EEC site is in the center of the Steptoe Valley about 30 miles north of Ely and approximately 6 miles east of the base of the Egan Range on the west side of Highway 93. The EEC will be located primarily in Sections 16, 17, 20 and 21 of Township 19 North, Range 64 East at about the following Universal Transverse Mercator (UTM) coordinates: 690,108 meters east and 4,374,813 meters north (Zone 11, North American Datum [NAD] 83). The elevation of



the project site is approximately 6,200 feet above mean sea level. At this time, roads provide access to the EEC site location.

## **1.2 PLAN OBJECTIVES**

The purpose of this plan is to provide the plant construction manager, Contractor, construction and environmental inspectors, and regulatory agencies with a description of measures to control fugitive dust associated with construction and operation of the EEC facility during pre-construction, construction, and operation. The management practices and activities in this plan are intended to accomplish the following:

- Minimize dust-related impacts
- Ensure that construction activities do not result in significant impacts to air quality

## **1.3 RESPONSIBILITIES**

The SPR and Contractor will take all reasonable precautions to minimize airborne particulate matter from the EEC and will apply dust suppression measures as necessary throughout construction of the EEC. Dust control measures will be available for application as necessary 24 hours per day, 7 days a week, in project areas where significant dust generation becomes a safety or air quality issue. Dust control measures will be ongoing during construction hours to ensure that the EEC site is in compliance with this plan. The Contractor shall ensure that during construction, measures are taken to maintain compliance. Control measures are identified in Section 6.0 of this plan. The responsibilities of the Company (SPR) and Contractor are specified below.

### **1.3.1 The Company**

The Company (SPR) will be responsible for the following:

- Obtaining a surface area disturbance (dust control) permit from NDEP for construction and operation of the EEC facility
- Ensuring that this plan is available on site throughout construction at the Company's field office
- Ensuring that a copy of this plan is maintained in the construction inspectors' and supervisors' vehicles and project files during the project
- Providing an environmental inspector to monitor performance and ensure compliance with this plan
- Ensuring that all project personnel understand the requirements for dust control described in this plan

Any changes to this plan will be submitted to NDEP in writing for approval prior to enacting the changes. Once construction is complete, the Company will notify NDEP.

The responsible official has read the provisions of *Nevada Administrative Code* (NAC) Section 445B.22037, "Emission of Particulate Matter, Fugitive Dust," and is aware that SPR is responsible for preventing controllable fugitive dust from the project area 24 hours a day, 7 days a week. The attachment to this dust control plan provides a copy of NAC Section 445B.22037.

### **1.3.2 The Contractor**

The Contractor will be responsible for the following:

- Providing the necessary labor and equipment to implement the dust control measures identified in this plan
- Implementing additional dust control measures as required by NDEP
- Suspending certain construction activities that generate significant amounts of uncontrollable dust during high wind conditions (30 miles per hour [mph] or greater)

Construction is scheduled to begin in Summer 2008. The construction will be completed in phases, and the first boiler unit is scheduled for completion in 2011 and the second in 2013.

## **2.0 CONTACT AND LOCATION INFORMATION**

### **RESPONSIBLE OFFICIAL:**

Roberto R. Denis  
Senior Vice President, Energy Supply  
Nevada Power Company  
6226 West Sahara Avenue  
Las Vegas, Nevada 89146  
Telephone No.: (702) 367-5662

### **PROJECT MANAGER:**

Darrell Soyars  
Sierra Pacific Power Company  
6100 Neil Road  
P.O. Box 10100  
Reno, Nevada 89520-0024  
Telephone No.: (775) 834-4744



**LOCATION AND ADDRESS:**

MAILING ADDRESS:

To Be Determined

PHYSICAL ADDRESS:

Ely Energy Center

Sections 16, 17, 20 and 21 of Township 19 North, Range 64 East (Hydrographic Basin 179)

UTM 690,108 meters east and 4,374,813 meters north

Zone 11, North American Datum 83

30 miles north of Ely, Nevada

West side of Highway 93 in the Steptoe Valley

**ON-SITE MANAGER:**

ON-SITE MANAGER:

To vary by day

ON-SITE FIELD OFFICE TELEPHONE:

To Be Determined

24-HOUR RESPONSE TELEPHONE:

To Be Determined

**PROJECT LOCATION:**

Ely Energy Center

Sections 16, 17, 20 and 21 of Township 19 North, Range 64 East (Hydrographic Basin 179)

UTM 690,108 meters east and 4,374,813 meters north

Zone 11, North American Datum 83

30 miles north of Ely, Nevada

West side of Highway 93 in the Steptoe Valley

### **3.0 ENFORCEMENT**

This dust control plan and the EEC project site are subject to inspection by an NDEP investigator at any time. If the Contractor cannot provide satisfactory control of airborne particulates, additional precautions may be reasonably prescribed by the NDEP investigator consistent with NAC Section 445B and this plan. The NDEP investigator will consider wind and weather conditions, soil type, size of the project, equipment use, control requirements stated in this plan, good faith efforts by the Contractor, and conditions beyond the control of the Contractor.

During high wind conditions (30 mph or greater), SPR and the Contractor may be required to suspend certain construction activities that generate significant amounts of uncontrollable dust. The on-site managers (personnel will vary by day) for SPR and the Contractor are authorized to cease operations when conditions may prevent the control of fugitive dust. If during construction the NDEP investigator documents noncompliance with any provision contained in this plan, a written Notice of Violation may be issued that will specify a period of time in which the Contractor must satisfactorily achieve compliance with this plan. In all cases, the Contractor will take appropriate actions to achieve compliance within 24 hours.

#### **4.0 ENVIRONMENTAL TRAINING**

All personnel working on the project will attend an environmental training program that will include a discussion of the requirements of this dust control plan. The training will emphasize Contractor and Contractor personnel responsibilities and methods for controlling dust as described in this plan. A training log will be kept on site with the daily operation log.

#### **5.0 DAILY OPERATION LOG**

A daily operations log will be kept on site that lists the operation hours of construction equipment, i.e. such as scrapers, graders, front-end loaders, and water trucks. Additionally, the log will list the amount of water used, the number of water trucks used, and when operations begin and cease each day. The daily operation log will also indicate if operations cease because of wind or other meteorological conditions.

#### **6.0 DUST CONTROL MEASURES**

The SPR and the Contractor will control fugitive dust by watering or applying chemical dust suppressants to disturbed active construction areas as described in this plan. Additionally, active wet suppression or installation of a porous wind fence may be used as necessary to minimize fugitive dust in the event bulk materials require on-site storage for an extended period of time.

The SPR and the Contractor will take all reasonable precautions to prevent the generation of dust. Reasonable precautions may include one or more of the following:

- Using water to control dust on access roads and the construction area
- Using chemical dust palliatives on access roads
- Curtailing certain activities during periods of extremely high wind conditions
- Limiting vehicle speeds
- Installing a wind fence



The following sections discuss the use of the following to control dust: water trucks, dust palliatives, wind fences, vehicular travel limitations, landscape preservation and impact avoidance, material storage and handling, paved roads and paved road crossings, coal storage pile requirement, and ash landfill requirements.

## **6.1 WATER TRUCKS**

The SPR and the Contractor will operate a minimum of two water trucks throughout the construction phase of the project as necessary. Water trucks will apply water as needed to control fugitive dust. The trucks will be available for operation as necessary 24 hours per day, 7 days a week, to control fugitive dust. If the water trucks cannot control fugitive dust, the SPR and the Contractor will provide additional water trucks or implement additional measures to control dust. The water supply for the water trucks will be from a construction well on the project site or pipeline delivery from an off-site source.

If winds exceed 30 mph and result in significant fugitive dust generation, additional reasonable efforts may be implemented, including shutting down mobile equipment or increasing the right-of-way watering efforts in a manner that adequately controls fugitive dust generation. If operations are shut down as the control method, the project area will continue to be watered. During winter and at any time that there is sufficient moisture due to weather conditions to defer the need for dust suppression, no dust control will be required.

## **6.2 DUST PALLIATIVES**

Dust control during construction will be achieved primarily through application of water or an approved dust palliative, such as calcium chloride, magnesium chloride, lignosulfonate, or some other effective suppressant. All dust palliatives used will be environmentally safe; comply with federal, state, and local regulations; and not result in a noxious odor or contaminate surface water or groundwater. If a dust palliative other than calcium chloride, magnesium chloride, or lignosulfonate is used, the Contractor will obtain prior approval from the Company, the Bureau of Land Management, and NDEP. Application rates for dust palliatives will follow the manufacturer's recommendations.

## **6.3 WIND FENCES**

In the event bulk materials require on-site storage for an extended period of time, the Contractor may install a porous wind fence to minimize fugitive dust.

## **6.4 VEHICULAR TRAVEL LIMITATIONS**

The speed limit for all vehicles will be limited to 15 mph in the construction areas and on unpaved access roads. Paved roads will have posted speed limits. Additionally, travel off of access roads will be restricted. Off-highway vehicle travel on roads established for use during construction or in adjacent areas will be discouraged by the placement of signs along the access road.

## **6.5 LANDSCAPE PRESERVATION AND IMPACT AVOIDANCE**

Vegetation in the project area will be preserved and protected to the extent possible to maintain ground cover and minimize dust generation. Vegetation clearing will be restricted to the area needed for construction. Final site grading and restoration will be initiated as particular areas are no longer needed for construction, stockpiling, or access. Treading on areas not immediately involved in project construction activities will be avoided to reduce potential wind erosion and fugitive dust generation.

## **6.6 MATERIALS STORAGE AND HANDLING REQUIREMENTS**

The SPR and the Contractor will not handle or store any material in a manner that results in excessive dust generation. Topsoil and subsoil storage piles maintained as a part of this construction project will be sufficiently wetted down to reduce wind-blown dust. Wetting may involve the use of a light soil tackifier or adequate wetting of the soil pile surface to produce a crust less prone to wind erosion. Screening will be conducted to ensure that dust emissions are controlled through the use of a water truck during less windy periods, and by other suitable control measures.

The control measures summarized below will be used on any vehicle operating on a roadway with a load of soil, sand, gravel, or other material susceptible to being dropped, spilled, or leaked, or that generates dust.

- Keep the materials sufficiently damp to control dust emissions during transportation.
- If necessary, the Company and the Contractor will use tarps or similar cargo covers to prevent the generation of airborne dust and to keep material from escaping.
- During truck unloading the drop height and fugitive emissions will be controlled as required.



## **6.7 ROADS AND ROAD CROSSINGS**

As necessary and only if approved and permitted, the access road to the site may be paved to prevent fugitive dust. Access roads that remain unpaved will be covered with gravel and/or watered as necessary to minimize dust generation. Any time the weather is dry enough to cause the formation of dust, the water truck will water the project site roads sufficiently to control fugitive dust. A semi-permanent compound (such as magnesium chloride) may be applied to unpaved roads to minimize fugitive dust from traffic. At paved road crossings, if applicable, the Contractor may install a rock access pad on both sides of the road to reduce the amount of soil tracked onto roadways.

In addition, any soil that is tracked onto adjoining paved roadways will be promptly swept or washed off the road surface as quickly as safety concerns allow. The Contractor will not wash mud or soil off the road into storm drain facilities unless adequate inlet sediment controls are in place. NDEP may require the Company and the Contractor to employ additional cleaning techniques to reduce tracking of soil or other materials onto paved surfaces.

## **6.8 COAL STORAGE PILE REQUIREMENT**

Coal storage pile dust suppression will be available when fugitive dust control is required.

## **6.9 ASH LANDFILL REQUIREMENTS**

In active landfill areas, dust suppression will be available when fugitive dust control is required. Landfill reclamation will be completed in conformance with the landfill permit to control fugitive dust.

## **7.0 REFERENCES**

Nevada Division of Environmental Protection (NDEP). 2002. "Surface Area Disturbance Permit, Dust Control Plan (Plan) Preparation Guidelines." Bureau of Air Pollution Control, Carson City, Nevada. October 15.

## **ATTACHMENT**

NAC SECTION 445B.22037 REGULATORY GUIDANCE



**NAC 445B.22037 Emissions of particulate matter: Fugitive dust.**

1. No person may cause or permit the handling, transporting or storing of any material in a manner which allows or may allow controllable particulate matter to become airborne.
2. Except as otherwise provided in subsection 4, no person may cause or permit the construction, repair, demolition, or use of unpaved or untreated areas without first putting into effect an ongoing program using the best practical methods to prevent particulate matter from becoming airborne. As used in this subsection, “best practical methods” includes, but is not limited to, paving, chemical stabilization, watering, phased construction and revegetation.
3. Except as otherwise provided in subsection 4, no person may disturb or cover 5 acres or more of land or its topsoil until he has obtained an operating permit for surface area disturbance to clear, excavate, or level the land or to deposit any foreign material to fill or cover the land.
4. The provisions of subsections 2 and 3 do not apply to:
  - (a) Agricultural activities occurring on agricultural land; or
  - (b) Surface disturbances authorized by a permit issued pursuant to NRS 519A.180 which occur on land which is not less than 5 acres or more than 20 acres.

[Environmental Comm’n, Air Quality Reg. §§ 7.3.1 & 7.3.2, eff. 11-7-75; § 7.3.3, eff. 11-7-75; A 12-15-77]—(NAC A 9-19-90; 12-26-91; 12-13-93; 10-30-95)—(Substituted in revision for NAC 445B.365)